



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,744	11/20/2003	Felix M. Sciulli	340058.534D1	8795
500	7590	10/12/2005	EXAMINER	
SEED INTELLECTUAL PROPERTY LAW GROUP PLLC			PRONE, JASON D	
701 FIFTH AVE			ART UNIT	
SUITE 6300			PAPER NUMBER	
SEATTLE, WA 98104-7092			3724	

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,744

Applicant(s)

SCIULLI ET AL.

Examiner

Jason Prone

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/22/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a "collar surrounded by a nut", of claim 6, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 3724

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification and Figures do not provide support for the nut surrounding the collar. The term "surrounding" requires one object to encircle another object. In Figure 9B, the nut clearly does not encircle or surround the collar.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Chalmers (5,018,670).

In regards to claim 1, Chalmers discloses the same invention including a mixing tube comprising a body (87) having a bore extending there through along a longitudinal axis (35) and being formed to withstand the passage of a high-pressure fluid jet (Lines 1-5 of Background of Invention section), a collar rigidly fixed to an outer surface of the mixing tube in an upper region of the mixing tube (93, In the position shown in Figure 9, the collar 93 is clearly rigidly fixed to the tube 87, if it were not rigidly fixed the tube

Art Unit: 3724

would not stay connected to the main body while in use), and the collar being sized and capable of sliding upward through a bore of a cutting head (Fig. 9) and bottom out against a member in the bore of the cutting head to prevent the mixing tube from being inserted any further into the cutting head (93 bottoms against 92).

In regards to claims 4 and 5, Chalmers discloses the outer surface of the collar is substantially cylindrical (93), and the outer surface of the collar is substantially frusto-conical (93).

In regards to claim 6, Chalmers discloses the collar is surrounded by a nut (90) and an outer surface of the nut being threaded to engage a threaded inner surface of a cutting head (96).

6. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Yie (4,945,688) see page 9 of this Office action for examiner added reference numerals. To the degree that it can be argued that Chalmers (5,018,670) does not anticipate claim 6, the following rejection has been made below:

In regards to claim 1, Yie (4,945,688) discloses the same invention including a mixing tube comprising a body (86) having a bore extending there through along a longitudinal axis (92) and being formed to withstand the passage of a high-pressure fluid jet (Title), a collar rigidly fixed to an outer surface of the mixing tube in an upper region of the mixing tube (700), and the collar being sized and capable of sliding upward through a bore of a cutting head (Fig. 1) and bottom out against a member in the bore of the cutting head to prevent the mixing tube from being inserted any further into the cutting head (700 bottoms against 701).

In regards to claim 6, Yie (4,945,688) discloses the collar is surrounded by a nut (82) and an outer surface of the nut being threaded (702) to engage a threaded inner surface of the cutting head (703).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chalmers in view Yie (4,555,872). Chalmers discloses the invention but fails to disclose the distance from a top surface of the mixing tube to a bottom surface of the collar is 0.02-2.0 inches and the wall thickness of the collar is 0.01-0.2 inches. Yie (4,555,872) discloses specific dimensions for a fluid jet apparatus (Columns 16-17, example II). The support cone (60) with a passage (61) in Yie (4,555,872) is similar to holder (62) and passage (67) in Chalmers and would, therefore, be on a similar order of size. Moreover, Yie (4,555,872) teaches a support cone/holder that has a diameter of 0.49 inches with a passage bore diameter of 0.15 inches. In view of the disclosed dimensions in Yie (4,555,872) and that the structure in Chalmers and Yie (4,555,872) are on the same order, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have made the distance between the top surface of the mixing tube and a bottom surface of the collar in Chalmers 0.02-2.0 inches and the wall thickness of the collar 0.01-0.2 inches. Additionally, to any degree that it can be argued

Art Unit: 3724

that it is speculative that Chalmers is on the same order of size as the fluid jet apparatus in Yie (4,555,872), in view of their similarities in structure and function, such similarities in size would have been obvious to reproduce to meet established standards.

9. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chalmers in view of Stevens (5,599,328). To the degree that it can be argued that Chalmers (5,018,670) does not anticipate "the collar is rigidly fixed to an outer surface of the mixing tube" limitation, the following rejection has been made below:

In regards to claim 1, Chalmers discloses the same invention including a mixing tube comprising a body (87) having a bore extending there through along a longitudinal axis (35) and being formed to withstand the passage of a high-pressure fluid jet (Lines 1-5 of Background of Invention section), a collar to an outer surface of the mixing tube in an upper region of the mixing tube (93), and the collar being sized and capable of sliding upward through a bore of a cutting head (Fig. 9) and bottom out against a member in the bore of the cutting head to prevent the mixing tube from being inserted any further into the cutting head (93 bottoms against 92).

In regards to claims 4 and 5, Chalmers discloses the outer surface of the collar is substantially cylindrical (93), and the outer surface of the collar is substantially frusto-conical (93).

In regards to claim 6, Chalmers discloses the collar is surrounded by a nut (90) and an outer surface of the nut being threaded to engage a threaded inner surface of a cutting head (96).

However, Chalmers fails to disclose the collar is rigidly fixed to an outer surface of the mixing tube. Stevens teaches a collar that is rigidly fixed to an outer surface of a tube (55). Therefore it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided Chalmers with a collar rigidly attached to the mixing tube, as taught by Stevens, because the one-piece collar/tube combination would better stabilize itself than two individual parts that could become separated.

Response to Arguments

10. Applicant's arguments with respect to 102(b) rejection under Stevens have been considered but are moot in view of the new ground(s) of rejection.

11. In response to applicant's argument that Stevens is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the Stevens reference discloses connecting tubes adapted to deal fluid flow. In connecting these tubes, Stevens teaches that it is old and well known for one of the tubes to incorporate a rigidly fixed collar to allow the collared tube to enter the receiving tube at a set entry distance. Also, in regards to Chalmers, the claims states "a collar rigidly fixed to an outer surface of the mixing tube". It is understood that, in Chalmers, the collar and tube are attached to one another before assembly, however, Figure 9 and Figure 2, in Chalmers, clearly shows a fully assembled state where the collar must be

Art Unit: 3724

rigidly fixed to the mixing tube. If the collar were not rigidly fixed to the mixing tube the assembly would fall apart and not be able function.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Prone whose telephone number is (571) 272-4513. The examiner can normally be reached on 7:30-5:00, Mon - (every other) Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 06, 2005



Patent Examiner
Jason Prone
Art Unit 3724
T.C. 3700

Art Unit: 3724

